

In the claims

1. (Original) A composition for delivery of a therapeutic, prophylactic or diagnostic agent comprising:

a nanoparticulate carrier comprising therapeutic, prophylactic or diagnostic agent to be delivered, and

a targeting molecule bound to the surface of the carrier,

wherein the carrier is targeted to a specific population of cells where the agent is to be delivered.
2. (Original) The composition of claim 1 wherein the carrier is selected from the group consisting of liposomes and microparticles.
3. (Original) The composition of claim 2 wherein the microparticles are formed of the agent to be delivered.
4. (Original) The composition of claim 2 wherein the microparticles are formed of a polymeric material.
5. (Original) The composition of claim 1 wherein the agent to be delivered is a cytotoxic compound.
6. (Original) The composition of claim 1 wherein the targeting molecule is a hormone.
7. (Original) The composition of claim 1 further comprising a gel enhancing uptake of the carrier into a cell.

8. (Currently Amended) A method of delivering a therapeutic, prophylactic or diagnostic agent comprising administering to a patient or tissue ~~the a composition of any of~~ claims 1-7 comprising a nanoparticulate carrier comprising therapeutic, prophylactic or diagnostic agent to be delivered, and
a targeting molecule bound to the surface of the carrier,
wherein the carrier is targeted to a specific population of cells where the agent is to be delivered.
9. (Original) The method of claim 8 wherein the composition is administered to sterilize an animal.
10. (Original) The method of claim 8 wherein the composition is administered to treat cancer or endometriosis.
11. (Original) The method of claim 8 wherein the composition is administered by injection.
12. (Original) The method of claim 8 wherein the composition is administered by pulmonary or intranasal or intravaginal or intrarectal delivery.